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ABSTRACT

This is a rationale and description for a dissemination program being developed by the School Practice and Service Division of the National Institute of Education. The document is being circulated to solicit comments on the soundness of the proposed work. The proposed program constitutes a coordinated attempt to make information, products, skills, and resources derived from research and development and exemplary practice available to educational practitioners to facilitate their problem-solving in targeted areas. The program is a venture into uncharted areas in an attempt to build additional linkages between research and development and the operating system. The apparent semiisolation and alienation of the one group from the other has come from a number of causes, including the linear-change model implicit in past federal leadership and policies in supporting educational research and development and dissemination. The proposed goal, objectives, strategies, and underlying assumptions of the program are described, as well as the proposed design, its consumer information component, its research and development utilization component, and its assessment. (Author/IPT)

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DRAFT/ For Public Comment

National Institute of Education

Dissemination and Resources Group

A CONCEPT PAPER FOR THE SCHOOL PRACTICE AND SERVICE PROGRAM

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EM 007 129

April 24, 1975

FOREWORD

This is a rationale and description for a dissemination program being developed by the School Practice and Service Division of the National Institute of Education. The document is being circulated to solicit comments on the soundness of the proposed work. Prior to the preparation of this document a brief prospectus was distributed for comment, and staff of the School Practice and Service Division visited with educators in 21 states to solicit their views. We are now inviting those contacted previously and other groups who may be interested in the program to comment further on the basis of the details offered here. An NIE conference to secure the views of a group of researchers, developers, and school personnel is also scheduled for late April in Washington.

The program proposed constitutes a coordinated attempt to make information, products, skills, and resources derived from research and development and exemplary practice available to educational practitioners to facilitate their problem-solving in targeted areas. The program is a venture into uncharted areas in an attempt to build additional linkages between research and development and the operating system. The apparent semi-isolation and alienation of the one group from the other has come from a number of causes including the linear-change model implicit in past Federal leadership and policies in supporting educational R&D and dissemination. We do not expect that this situation will change quickly--or easily.

Furthermore, a targeted approach such as this one, regardless of its sensitivity to practitioner needs, is nevertheless an intrusion upon

local autonomy. We are, in effect, saying that we cannot solve all--or even most--problems that beset teachers and administrators; but where we do set out to help solve targeted problems we will do so in a manner compatible with local control. Over time, as the proposed targeted resource base is expanded to include a greater range of problem solutions, and as skills in and knowledge of the problem solving process increase, this program can become responsive to practitioner concerns across many topics.

For the present, however, we must acknowledge that our efforts are experimental, not in the research design sense, but in the sense that we begin tentatively in few settings and grow only when we have developed a clearer understanding of what activities work under what conditions. This is to say that the size of our program, measured by funds, number of participating agencies and institutions, or problem areas addressed, s small--substantially smaller than the conceptual scope of what we propose to do. Precisely because of the innovativeness of our proposal, we plan to begin modestly, learn, and grow only when success can be demonstrated.

To produce a more readable document, much of the material supporting the assumptions we have made and the choice of goals and strategies has been deleted from this paper. Copies of background material and future documents related to the program will be available on request.

Please return your comments on this draft to:

C. L. Hutchins
School Practice and Service Division
Dissemination and Resources Group
National Institute of Education
Washington, D. C. 20208

Comments returned by May 31, 1975 can be considered in preparing a final draft of plans for Fiscal Year 1976. Comments after that time also will be appreciated and will be useful in further refinements of the plan.

Because field comments are being solicited and may be used, where feasible, to modify the work proposed, this document should not be understood to commit the Institute to any particular procurement actions. Depending upon the comments received and, perhaps, on other unforeseen events, the final course of action to mount a program of R&D implementation services to schools may differ significantly from what is suggested here.

I. BACKGROUND

Congress established the National Institute of Education to address the problem of how to provide every person an equal opportunity to receive an education of high quality, regardless of race, color, religion, sex, national origin, or social class. More specifically the Institute is to:

- help solve or to alleviate the problems of, and promote the reform and renewal of American education;
- advance the practice of education, as an art, science, and profession;
- strengthen the scientific and technological foundations of education; and
- build an effective educational R&D system.

The Congress specifically authorized dissemination as a major activity through which Institute objectives would be accomplished. The Congress clearly indicated that the term "dissemination" should be construed broadly. For example, a Senate Conference report indicated:

> The conferees' intent is that the whole complex set of dissemination/utilization functions that are desirable in this area are a major responsibility of the National Institute of Education.

This interpretation is important because if the term dissemination were restricted to only the concept of spreading or diffusing information about R&D innovations, rather than helping schools adopt and implement them, the prospect for meeting the overall legislative mandate would be weakened substantially.

While this program represents the Institute's major thrust into support for R&D <u>implementation</u> and <u>utilization</u>, a wide range of related

dissemination functions are found elsewhere in the Institute. These functions and the NIE units having responsibility for them include the following:

- Each program unit or task force within the Institute assumes a responsibility for assuring that the findings or products that result from its work are fed into appropriate professional and commercial channels so that they are available to the public.

- The Dissemination and Resources Group provides technical assistance to the programs of the Institute to insure that appropriate use of copyright is made to increase the availability of NIE's work; the same group also provides assistance in locating publishers.

- The Local Problem Solving Program conducts research on the question of how change occurs in schools, what roles local initiatives and incentives play in the change process, and how informal linkage functions between innovators and schools can be stimulated.

- The Dissemination and Resources Group also operates an Information and Communication Systems Division. The activities of this unit include the operation of the ERIC information system and a grants program to build the dissemination capacity of state and other educational institutions.

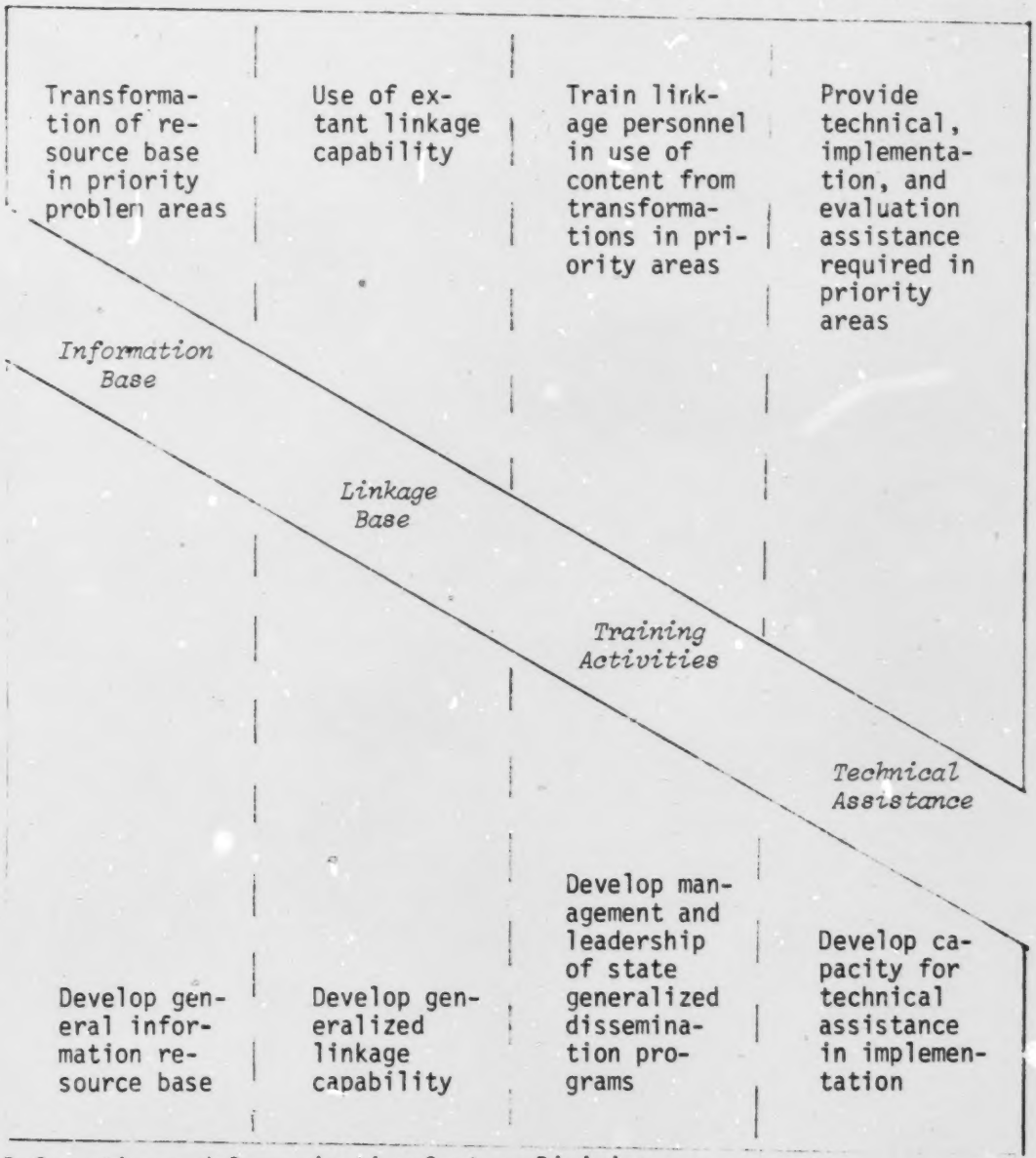
The work of the Information and Communication Systems Division, in particular, intersects and is in a complementary relationship with the work proposed for the School Practice and Service Division. The relationship and major distinctions between the work of the two Divisions is illustrated in the figure on the following page. The distribution of space within the figure is intended to reflect the approximate amount of resources devoted to each of the four classes of work identified.

Taken together, the combined efforts of NIE in the area of dissemination are designed to build a capability in state and local education

agencies through which the knowledge base increasingly can be used for rational decision making and improvement in education.

CONCENTRATIONS OF EFFORT: SCHOOL PRACTICE AND SERVICE DIVISION AND INFORMATION AND COMMUNICATION SYSTEMS DIVISION

School Practice and Service Division


Transformation of resource base in priority problem areas
Use of extant linkage capability
Train linkage personnel in use of content from transformations in priority areas
Provide technical, implementation, and evaluation assistance required in priority areas
Information Base
Linkage Base
Training Activities
Technical Assistance
Develop general information resource base
Develop generalized linkage capability
Develop management and leadership of state generalized dissemination programs
Develop capacity for technical assistance in implementation

Information and Communication Systems Division

II. PROPOSED GOAL, OBJECTIVES, STRATEGIES, AND UNDERLYING ASSUMPTIONS

Programs such as the one proposed herein rest on a number of assumptions. The conceptual strength of the program depends heavily upon the validity of the assumptions. Our major assumptions are summarized here so reviewers can judge the validity and adequacy of the base on which the program rests.

Goal

The major goal of the program is to help solve locally defined problems in selected content areas through increased utilizat on of existing research and development (R&D) outcomes and methods.

Assumptions Underlying the Goal

Four basic assumptions on which the major program goal rests are that

- there are identifiable educational problems to be solved,
- R&D outcomes and methods are viable tools with which educational problems can be solved,
- existing R&D outcomes and methods are of sufficient quality to warrant their use, and
- those outcomes and methods are not now in general use.

It should be noted that acceptance of these assumptions does not require one to believe that all problems are amenable to R&D solutions, that R&D alone can actually solve problems, or that existing R&D outcomes and methods are uniformly high in quality and generalizability.

Assumptions Underlying Program Objectives

Since the goal of the program is to help solve educational problems by using R&D outcomes and since it is assumed that useful R&D outcomes are available but not used, the major problem is to find means to mitigate the causes of low utilization. To identify these means and transform them into program objectives we have made an additional set of assumptions. Each of these assumptions later will be shown to drive a specific program objective.

The assumptions about why R&D outcomes are not used more widely and effectively in the educational system are these.

- Basic information about available R&D outcomes is unknown to potential users.
- Comparative or consolidated information on the merits and utility of alternative R&D outcomes is not available to and known by potential users.
- Many R&D outcomes have no effective distribution system to make them available to potential users.
- Potential users are alienated by the fact that many R&D outcomes tend to reflect a lack of broad user participation or sensitivity to user needs.
- R&D outcomes tend to involve complex institutional and behavioral changes requiring assistance in the form of interpersonal contact, training, and management support that is not generally available.
- R&D outcomes generally do not match well with the great variety of contexts that exist in schools; as a result, they require adaptations that are not currently available.

Program Objectives

A separate program objective has been derived from each of the six foregoing assumptions. These objectives are to:

- o Make information on specific R&D outcomes more readily available to potential users.
- o Organize qualitative and analytic information on R&D outcomes into forms needed for decision-making on the choice and use of specific R&D outcomes.
- o Insure that specific R&D outcomes are readily available to potential users.
- o Improve the usability of R&D outcomes through increased linkage and interaction between developers and potential users.
- o Provide support and technical assistance to help schools install, and effectively utilize R&D outcomes.
- o Provide technical assistance to modify specific outcomes to fit local constraints.

The first three objectives are closely related to the development of a knowledge base needed for pre-decisional aspects of educational innovation and change (information gathering, searching for alternatives, screening and evaluating them and securing the outcome or product). This group of objectives forms the basis for work proposed later within a "Consumer Information" component. The last three objectives are post-decisional and utilization-oriented (implementing the innovation, insuring its operational success, etc.). They form the basis for a proposed "R&D Utilization" component.

Assumptions Underlying Program Strategies

Assumptions about the change process and the social, political, and economic context within which the program must operate shape the major program strategies which will be followed. These contextual assumptions include:

- o Effective change within social enterprises such as education requires a myriad of affirmative personal decisions

by potential users or consumers; they generally will respond negatively if they believe they are being denied access to a wide range of alternatives and are being forced into accepting a single outcome.

- o The role of the Federal government in implementing change in education is limited generally to providing resources, coordination, and leadership not otherwise available to individual states and communities where the specific nature of the change is determined; even so, resources available for the purpose of implementing improvements in education are extremely limited relative to the need.

Program Strategies

As a result of these assumptions about the context within which the program will operate, two primary strategies have been adopted to shape choices of individual program activities to be proposed. These strategies are:

- o the adoption of a consumer-oriented, problem-advocacy approach rather than a producer or product approach; this has meant the choice of activities that focus on providing the potential users with alternatives, including the use of non-NIE R&D outcomes and verified exemplary practices;

- o the choice of a linkage strategy, building upon the work of existing dissemination programs and agencies rather than creating new ones; this has resulted in activities that can be combined with existing programs, and activities that capitalize on shared resources, collaborative efforts, and joint funding.

III. PROPOSED PROGRAM

Overview of Program Design

The problems discussed above are conceptually separable into knowledge or resource-based objectives and utilization support objectives. As a result, the proposed program will be divided into two components: a Consumer Information Component and an R&D Utilization Component. The objectives of either component could be managed centrally, by NIE, or could be addressed and managed separately by state and local agencies. The design proposed by this program is to adopt a mixed approach in which the resource based objectives (Consumer Information Component) are coordinated centrally with input and help from the field, while the utilization support objectives (R&D Utilization Component) are predominately coordinated by state and local agencies with advice and counsel from NIE. This mixed approach was adopted to reflect the tradeoff between the importance of insuring that everything is directly related to each user's needs and the efficiencies of scale and benefits of mutual collaboration possible when all are addressing a similar problem. It is thought that the advantages of mutual collaboration and the potential for efficiencies of scale are more likely to appear in building the resource base; there is not as great a likelihood of them appearing in the implementation work. In addition, a centralized management approach is more susceptible to failure by not reflecting the needs of individual clients and situations involved in the utilization activities than the resource base activities.

Given this basic design decision, the Consumer Information Component activities would consist of NIE-coordinated efforts intended to determine

practitioner needs, transform information into verified decision-making materials and useful formats, further the state-of-the-art in the techniques and criteria used in relating research and development to practice, and disseminate both products and decision-making materials. The R&D Utilization Component activities would be State and regionally determined efforts intended to assist intermediate linkage agencies improve their problem solving activities, test and adapt the materials produced under the auspices of the Consumer Information Component, identify local operational and topical problems, and facilitate the selection and use of verified outcomes for implementation by schools. Conceptually, the Components complement each other; operationally, if these developmental efforts are to be successful, they must also be interactive. The Consumer Information Component must develop a verified resource base relevant to a range of local needs and operational constraints, whereas the R&D Utilization Component must provide accurate and timely information about such needs and constraints as they emerge in problem-solving situations.

We believe that a three to five year developmental effort will be required before any given topical problem is comprehensively addressed in any given State or region. Consequently, we propose a staged implementation of this program. We propose to begin the Consumer Information Component with the best knowledge and materials at hand related to selected problem areas, improve upon them where necessary, test them in problem-solving contexts, and use the information for further refinements or to pursue new transformations of the knowledge base. Similarly, activities in the R&D Utilization Component will, during the first year or two, be

directed toward testing materials and approaches, building linkages, solving priority state problems, and increasing teacher and administrator awareness of verified problem solving methods and products.

Consumer Information Component

Objectives. The Consumer Information Component is viewed as a responsive resource to the R&D Utilization Component and will be focused upon the development and dissemination of those pre-decisional resources and procedures needed to help educators identify problems, choose solutions, and make necessary adoptions or adaptations. The objectives of the Component are:

- o To make information on R&D outcomes available,
- o To organize and transform information needed for decision-making,
- o To ensure availability of R&D outcomes.

To achieve these objectives, we explicitly reject a product-advocacy strategy of educational change in which one solution to a problem is promoted and supported. Instead, we propose that a range of alternatives be offered so that what was once viewed as simply an adoption process will become a process of planned adaptation.

To use resources effectively, we will narrow the range of problems addressed. We think a concentrated approach toward solving a few critical problems will be more effective than a generalized or product-advocacy approach. During the first year, the proposed topical areas are: reading; education and work; and, tentatively, a third yet-to-be-named topic. These topics were picked because, in our judgment, NIE's existing R&D investment has yielded the largest number of tested, available outcomes in these areas. We expect that two or three problem areas would

be added in each subsequent year, while refinements would continue on a periodic basis in previously included problem areas. These additional topics would be selected on the basis of user need exhibited through the utilization component's activities.

Activities. Three types of activities are planned. The relative emphasis across these activities will depend upon the nature of the topical problem areas, their operational complexity, the depth and validity of the research base and the quantity and quality of available outcomes.

1. Increasing information about available R&D outcomes: the primary activities would include the development and dissemination of catalogs or inventories of verified outcomes including exemplary practices. An essential starting point, regardless of the problem area to be addressed, would be the continuation, refinement and biennial up-dating of the 1975 catalog of products developed by NIE contractors. Within selected problem areas, the NIE catalog will be supplemented by information on outcomes developed by a variety of other performers. For example, in a given problem area, we propose to develop a resource inventory and guide to existing catalogs, other guides, technical expertise, demonstration or simulation sites, and extant materials and programs. For both the catalog and the resource inventory and guide, information and orientation materials will be developed for several types of user audiences, e.g., teachers, principals, board members. Interpersonal techniques for using the guides and catalogs will be available for change-agent personnel. As we discussed above, these materials would be developed according to the needs and perspectives of the users and would be extensively tested by personnel involved in the R&D Utilization Component. The resulting guides, orientation program, training, etc. would be broadly disseminated on a nationwide basis using not only the contractors who develop the

materials and training but professional associations and other groups already involved in such work.

Because this work will include a focus on identifying exemplary practices in specific problem areas and because techniques and procedures for identifying, documenting and verifying local practice are not uniform in application or sophistication, one additional activity will be undertaken: In close cooperation with the agencies and personnel involved in R&D Utilization, the contractors engaged in this activity will conduct studies to develop common terminology, procedures and criteria that could be used in the identification, assessment and verification of locally-developed practice.

2. Transforming the knowledge base for decision-making situations. Information about products, research outcomes, models, etc. are a base upon which decisions can be made. An important additional dimension, however, is how all these pieces fit into a whole that related to an individual decision-making situation. We believe much more effort needs to be made than has been made in the past to help educators cope with the bewildering array of alternative courses of action that are open to them. To do that we propose a relatively complex developmental effort that would consolidate existing theoretical and empirical research with information about existing and exemplary practices. The purpose would be to provide an analytical framework for making specific adoption/adaption decisions. Initially this would be done in two areas: initial reading and education and work. Two topics would be added annually. The process for transforming the knowledge base for a single topic might take from

between two to three years. Activities would include: identifying propositions that current research suggests as valid for instruction in a particular problem area and relating these research-based propositions to information about practices that educators currently use and find effective. The result, for example, might be answers to questions about the utility of adapting an existing "decoding" approach to initial reading to include activities that reflect a "language experience" frame of reference. Or, answers to questions about the importance of certain types of career education programs given a particular set of values held by a community. We acknowledge that this proposed consolidation effort is a relatively high-risk undertaking. But we believe that the payoff will be great if the results significantly improve the quality of decisions that local educators can make as a result. The key to the success of this undertaking will be extensive interaction with the field in the use of early prototypes coming out of the work and extensive revision to insure that the outcomes are useful in decision-making settings. When concluded, the results will be disseminated through a "trainer of trainers" approach using groups such as intermediate service agents and professional staff in colleges of education.

3. Insuring the Accessibility of R&D Outcomes. The various task forces within the Institute are generally responsible for ensuring that products and other knowledge outcomes of their contract or grant work is made available in as effective a manner as possible to the intended audiences. In the case of research findings, this usually has meant the use of professional publications or information channels such as ERIC. Though not

especially fast, these channels seem adequate and no activities are proposed beyond what is now sponsored by the Institute. In the case of products, arranging for "accessibility" frequently means arranging for the commercial distribution of materials. For this purpose the Institute will continue to operate what is known as the Copyright Program which, among other things, facilitates arrangements between contractors and grantees on the one hand and commercial publishers and distributors on the other. One problem area, however, has been the difficulty of attracting publishers for products such as models, teacher guides or administrative guides, which are used only in limited quantities. There are measures that could be taken to solve this problem. For example, the Institute could fund a publishing contract for the distribution of groups of such products. This and other options must be carefully but promptly studied and a satisfactory solution implemented.

R&D Utilization Component

Objectives. The purpose of this component is to support services needed at the State, intermediate, and local level if the outcomes of R&D are to be used increasingly to solve educational problems. Operating in conjunction with the Consumer Information Component, work proposed herein will enable potential users of R&D more readily to identify and to examine the quality of R&D outcomes relevant to educational problems they face, and to effectively install solutions which they select.

The program objectives that are specific to this component are:

- o Improve the use of R&D outcomes through increased linkage and interaction between developers and potential users.

- o Provide technical assistance to help schools select, install, and fully utilize appropriate R&D outcomes
- o Provide technical assistance to modify specific outcomes to fit local constraints.

Both "problem-advocacy" and "linkage" strategies will be used by this component. The problem-advocacy strategy means that implementation activities will start with a local problem perspective and try to marshal a wide range of R&D resources and services to aid local personnel to assess their needs, examine program options to meet these needs, modify the selected options as required, and implement the new programs in their schools. The second strategy suggests the meshing of the talents and resources of state, intermediate, and regional educational service agencies and R&D organizations to support schools to successfully carry out these tasks.

Activities. This component proposes to use two configurations of activities: (1) State network activities and (2) interstate network activities. The State network pattern exists in approximately 25 States where the SEA's have developed or encouraged the growth of regional intermediate service agencies or local service functions. Sometimes universities and other non-profit groups are tied to these networks. The interstate network approach facilitates efforts with large numbers of relatively homogeneous schools or schools focused on similar problems without regard to state boundaries. Employing such interstate networks, developers frequently implement one or more outcomes. The state and interstate linkage services appear to offer unique opportunities to increase the utilization of R&D outcomes.

1. State Network Activities. Activities are proposed through which funds would be made available to agencies within a state (e.g., SEAs, intermediate service agencies, large city school districts) to serve as catalysts or linkers between those schools who have problems and those R&D outcomes that represent possible solutions. In addition it is proposed that these agencies would subcontract with the R&D groups to secure the technical assistance and the R&D outcomes required by schools. In some cases, contracts would be awarded to R&D organizations directly, if this would facilitate the process of delivering assistance where it is needed. Specific proposed activities include:

Two different levels of activity would be fundable under the State Utilization effort: (1) providing services to schools or (2) carrying out only the planning and design work prerequisite to providing services. At the "service" level, the following activities would be supported by NIE, with the services being delivered by a State agency, an R&D organization, a combination of the two, or a consortia organized for this purpose:

- Training staffs in school systems, service units, and State agencies to install R&D outcomes. Examples might include workshops for teachers, principals, and curriculum specialists in a district installing a specific new reading program, or special courses to help State and regional educational services personnel develop "linking agent" skills specifically related to R&D utilization.

- Developing and distributing announcement materials, and organizing and conducting awareness conferences and demonstrations based on the new or expanded R&D based program improvement services being offered to schools. Examples might include bringing together at one demonstration site key staff from several schools considering a common problem, such as the staff training needed to implement education and work programs at each of the schools.

- Establishing and operating a program improvement resources bank(s) including collections of available R&D based curriculum materials, descriptions of programs verified as successful, inventories of consultants with skills related to the local needs identified earlier, and other relevant R&D information files.

- Purchasing through subcontracts with R&D organizations, the specific consultative, training, and services determined necessary to implement improved educational programs. Examples might include the purchase of skills to help evaluate an activity, to redesign an existing program or educational product to meet the specific needs of a district, to demonstrate a series of related R&D products, or to train users of an R&D product.

- Developing and conducting a series of planning/decision-making/trial/installation/feedback processes, using available R&D resources, and intended to result in improved educational programs at the schools involved. Generally the output of each of these processes will be a significant change in an existing practice or program or the installation of a new R&D based program.

Under the "planning and design" level the following typical kinds of work would be supported by NIE:

- Making an assessment of the program improvement and educational change needs of the schools to be served to determine those priority problem areas that appear most capable of solution through the development of R&D utilization services.

- Investigating the technical assistance capabilities of selected, non-profit R&D organizations, and soliciting proposals from them to supply specific consultative assistance to match the local priority problems identified.

- Investigating the feasibility of using products from the Consumer Information Component contractors.

- Developing the design, operating plan, schedule, cost estimates, staff training and organizational and institutional requirements for the operation of an R&D utilization service.

The State networks would also be eligible for funds to advance exemplary program services. The term exemplary program services is defined as those activities focused on the identification, description, and dissemination of locally developed educational programs and practices found to be effective. Of particular importance would be activities designed to analyze (compare and contrast) the various practices identified in order to provide users with a better understanding of the component elements of programs that appear to function in an exemplary manner. Topic areas to be supported would be limited to reading, education and work, or another problem established by State priority. Broad, multi-topic or multi-problem searches for exemplary practices will not be supported.

2. Interstate Network Activity. The general purpose and objectives of this activity are the same as those described for the State Network Activity discussed above. It is anticipated that using and expanding the services of interstate networks would substantially increase the impact of R&D outcomes on schools beyond those who would be reached through a State by State approach. This is so because of the historical development of interstate networks and the following traits of these networks:

- o Many of the organizations that operate interstate networks have over the years developed the skills and capacity to help numbers of schools install specific R&D outputs. Installation, in many of these instances, has meant the organization helping with the total process, from local needs assessment to long-term technical assistance, as the schools made the necessary changes. It is these skills that NIE plans to build upon, by funding such interstate networks to expand their capability to install a larger range or number of R&D outputs in schools.

- o The interstate networks seem to have been more R&D utilization oriented than the intrastate groups. This may

imply the need for less capacity building around the nature and processes of the R&D approach.

- Another potential of the interstate networks resides in the frequency with which they have focused on specific classes of clients with homogeneous characteristics and problems--big city schools, rural schools, etc. These specialized networks can assist schools that have unique needs that the state program cannot serve adequately.

Assessment

The staff believes that the proposed program is both technically complex and difficult to implement. For these reasons we propose a major evaluation or assessment component. A variety of types of evaluative information will be needed to inform program management decisions and, ultimately, policy-makers who will determine the amount of public funding used to support the utilization of R&D in education. This evaluation goal will not be easily met.

Given the complexity of the governance and decision making structures involved in this program, the diversity of decisions requiring assessment information, and the potential for conflict between data sources and data users, a comprehensive evaluation plan must be explicated which makes clear to all participants the need for, and uses to be made of, each specific class of information. Such a plan will be developed through interaction with participants at various levels, and in consultation with persons having extensive experience in evaluating complex programs at the local, State, and federal levels.

The staff also recognizes that some of the process and outcome objectives of our program cannot be evaluated directly. The measurable program, which is to say the manageable program, is undoubtedly somewhat

less than our rhetorical program. Consequently, we envision that an evaluation contractor will participate in both the design and assessment of the program.

We also acknowledge that even our most fundamental assumption of our program remains implicit and not fully tested. That is, we assume that there is a discernible and predictable change process at the local school building or district level that can be improved by the intervention of improved knowledge and technical skills. This assumption and the others made will be examined as the evaluation is designed and conducted. One way of conceptually keeping our assumptions and relationships in order is suggested by the following matrix:

Program Resources and Procedures	Assumed Targeted Problem-Solving Activities					
	Awareness	Interest	Evaluate	Trial	Adopt	Effects
Resource Base catalogues guides						
Dissemination training media publishers						
Linkages state interstate						
Implementation timing clarity funding						

There is nothing sacrosanct about the matrix except as a reminder that the evaluation must look at the intersections between our assumptions about the change process in schools and our program.

DEFINITIONS

A number of terms have been used in the School Practice and Service Division Concept Paper which are not in general use. Some represent emerging concepts which lack generally agreed upon definitions. To facilitate your understanding of the paper, a working definition for a number of these terms follows. We will appreciate suggestions on ways to further clarify the language used.

Knowledge transformation: Includes the total set of activities leading to consolidations of knowledge derived from theory and practice with integrated materials in a form useful to practitioners in needs assessment, selection of problem-solving strategies, program implementation, review and revision.

Consolidation of R&D knowledge: We expect to coordinate a process which will enable educators and researchers to reach a consensus on knowledge directly related to practice. It is assumed that the consensus will often be serveral alternatives rather than a single solution.

Integration of Materials: Refers to the linking of curriculum, teacher training and management support materials with the consolidated knowledge base, so that in the decision making process the resources available and the training requirements will be clear.

Intermediate Service Agency (ISA) Functions: Includes the provision of information, consultation, and training to school district staff, and, where district staff are not available, directly to school based staff. This set of activities may be performed by an ISA, an SEA or by the district supervisory staff in large school systems. The relationship of the ISA to schools is characterized by relative geographical accessability, continuity of association, and collaborative planning of ISA activities.

R&D Outcomes (Research and Development Outcomes): Any outcome produced by a process of disciplined inquiry regardless of where that activity took place or who performed it. The outcome may be in the form of instructional products or programs, models, guidelines, instruments, research reports, etc.

Resource Guides: We expect to support development of resource guide publications which arrange and describe catalogs, services, information analysis products, etc., in terms useful to practitioners and ISA agents.

Verification: Checking the accuracy and justifications for the statements made about the outcomes. These statements may describe product costs, effectiveness, unique features, etc.

Exemplary: Receipt of a high overall rating based on a systematic review process using explicit criteria.

ACRONYMS

1. ERIC: Educational Resources Information Center
2. NIE: National Institute of Education
3. R&D: Research and Development
4. SEA: State Education Agency (For purposes of this document, that agency with responsibility for public elementary and secondary education.)
5. ISA: Intermediate Service Agency (See definition for functions attached.)
6. LEA: Local Education Agency (School District)
7. DRG: Dissemination and Resources Group, a major subdivision of NIE
8. SPSD: School Practice and Service Division, the subgroup of DRG having responsibility for proposed programs